

## What is claimed is:

[Claim 1] 1. A high density plasma chemical vapor deposition (HDPCVD) process, comprising:

performing a first deposition step on a wafer;

rotating the wafer with an angle; and

performing a second deposition step for completing a thin film deposition, the thin film having a uniform thickness, wherein a deposition system is adapted to deposit the thin film comprises  $n$  gas output holes, wherein the first and the second deposition steps require a time interval, and at one half of the time interval, the wafer is rotated at the angle of  $360/2n$  degrees, and  $n$  is an integer.

[Claim 2] 2. The HDPCVD process of claim 1, wherein the deposition system comprises eight output holes and the angle is 22.5 degrees.

[Claim 3] 3. The HDPCVD process of claim 1, wherein the first and the second deposition steps constitute a deposition cycle, the process further comprising:

repeating the deposition cycle at least once.

[Claim 4] 4. The HDPCVD process of claim 3, wherein the deposition system comprises eight output holes and the angle is 22.5 degrees.

[Claim 5] 5. A high density plasma chemical vapor deposition (HDPCVD) process, comprising:

performing a first deposition step on a wafer;

rotating the wafer with an angle; and

performing a second deposition step for completing a thin film deposition, the thin film having a uniform thickness, wherein a deposition system is adapted to deposit the thin film comprises  $n$  gas output holes, and performing the first and the second deposition steps require a time interval, wherein at  $1/m$  of the time interval, the wafer is rotated at the angle of  $360/(m*n)$  degrees, and  $m$  and  $n$  are integers.

[Claim 6] 6. The HDPCVD process of claim 5, wherein the wafer is rotated with the angle at one half of the time.

[Claim 7] 7. The HDPCVD process of claim 6, wherein the deposition system comprises eight output holes and the angle is 22.5 degrees.

[Claim 8] 8. The HDPCVD process of claim 5, wherein the first and the second deposition steps constitute a deposition cycle, the process further comprising:

repeating the deposition cycle at least once.

[Claim 9] 9. The HDPCVD process of claim 8, wherein the wafer is rotated with the angle at one half of the time.

[Claim 10] 10. The HDPCVD process of claim 9, wherein the deposition system comprises eight output holes and the angle is 22.5 degrees.

[Claim 11] 11. A method for improving uniformity of thickness of a thin film, adapted for a chemical vapor deposition process, comprising:

forming the thin film with uniform thickness by rotating a wafer with an angle while depositing the thin film on the wafer.

[Claim 12] 12. The method for improving uniformity of thickness of a thin film of claim 11, wherein a deposition system adapted to deposit the thin film comprises  $n$  gas output holes; depositing the thin film on the wafer require a time; and at  $1/m$  of the time, the wafer is rotated an angle with  $360/(m*n)$ , and  $m$  and  $n$  are integers.

[Claim 13] 13. The method for improving uniformity of thickness of a thin film of claim 12, wherein at  $1/2$  of the time, the wafer is rotated with the angle.

[Claim 14] 14. The method for improving uniformity of thickness of a thin film of claim 13, wherein the deposition system comprises eight output holes and the angle is 22.5 degrees.

**[Claim 15]** 15. The method for improving uniformity of thickness of a thin film of claim 11, wherein the chemical vapor deposition process comprises a high density plasma chemical vapor deposition (HDPCVD) process.